UVB-76

UVB-76, also known as "**The Buzzer**", is the nickname given by radio listeners to a shortwave radio station that broadcasts on the frequency 4625 kHz.[1][2] It broadcasts a short, monotonous buzz tone, repeating at a rate of approximately 25 tones per minute, 24 hours per day.[1] Sometimes, the buzzer signal is interrupted and a voice transmission in Russian takes place.[3] The first reports were made of a station on this frequency in 1973.

Broadcast area	Russia, Soviet Union (Former)
Frequency	4625 kHz Shortwave
Format	Repeated buzzing sound
Language(s)	Russian
Former callsigns	УВБ-76, МДЖБ, ЖУОЗ
Former frequencies	4625 kHz
Owner	Russian Armed Forces
Sister stations	The Pip, The Squeaky Wheel

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Name

The station is commonly known as **the Buzzer**[4] in both English and Russian (Russian: Жужжалка). Up until 2010, the station identified itself as **UVB-76** (Russian: УВБ-76), and it is still often referred to by that name. In September 2010, the station moved to another location, and adopted the identification **MDZhB** (Russian: МДЖБ). On December 28, 2015, the station began using the callsign **ZhUOZ** (Russian: ЖУОЗ) – pronounced "Zhenya, Ulyana, Olga, Zinaida". From March 1, 2019, the station appears to be using a number of new callsigns, the most recurring of which is **ANVF** (Russian: АНВФ).

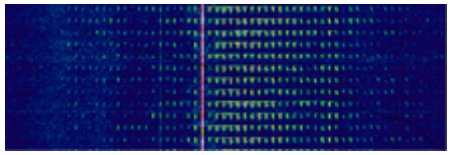
Format

The station transmits using AM with a suppressed lower sideband (R3E), but it has also used full double-sideband AM (A3E). The signal consists of a buzzing sound that lasts 1.2 seconds, pausing for 1–1.3 seconds, and repeating 21–34 times per minute. Until November 2010, the buzz tones lasted approximately 0.8 seconds each.[1][5] One minute before the hour, the repeating tone was previously replaced by a continuous, uninterrupted alternating tone, which continued for one minute until the short repeating buzz resumed, although this stopped occurring in June 2010.[6]

The Buzzer has apparently been broadcasting since at least 1973[7] as a repeating two-second pip, changing to a buzzer in early 1990.[7][8] It briefly changed to a higher tone of longer duration (approximately 20 tones per minute) on January 16, 2003, but it has since reverted to the previous tone pattern.

External video

- UVB-76 in 1976 on YouTube
- UVB-76 in 1982 on YouTube
- UVB-76 in 1989 on YouTube



A spectrum for UVB-76 showing the suppressed lower sideband.

Voice messages

Sometimes the buzzing sound is interrupted and a voice message is broadcast. These messages are usually given in Russian by a live voice, and follow a fixed format.[1][9][10] An example of such a message:

At 21:00 UTC on December 24, 1997:

```
Ya UVB-76, Ya UVB-76. 180 08 BROMAL 74 27 99 14. Boris, Roman, Olga, Mikhail, Anna, Larisa. 7 4 2 7 9 9 1
4
```

Voice messages were thought to be very rare, until 2010 when listeners reported increased activity of the station, spurring on further monitoring and allowing listeners to "catch" more of the messages which would have otherwise gone unnoticed.[11] On June 5, 2010, UVB-76 went silent for approximately 24 hours, resuming the normal buzzing pattern on the morning of June 6. At 13:35 UTC on August 23, 2010, a voice message was broadcast:

```
UVB-76, UVB-76. 93 882 NAIMINA 74 14 35 74. 9 3 8 8 2 Nikolai, Anna, Ivan, Mikhail, Ivan, Nikolai, Anna.
7 4 1 4 3 5 7 4
```

On October 17, 2016, The Buzzer broadcast at least 18 different messages in less than 24 hours.[12]

Unusual transmissions

Frequently, distant conversations and other background noises have been heard behind the buzzer, suggesting that the buzzing tones are not generated internally, but are transmitted from a device placed behind a live and constantly open microphone. Because of the occasional fluctuating pitch of the buzzing tones it is supposed that the buzzing tones are generated by a tonewheel as used in a Hammond organ. It is also possible that a microphone may have been turned on accidentally.[13] One such occasion was on November 3, 2001, when a conversation in Russian was heard:[5]

```
Я – 143. Не получаю генератор... ...идёт такая работа от аппаратной.
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On November 11, 2010, intermittent phone conversations were transmitted and were recorded by a listener (at 14:00 UTC) for a period of approximately 30 minutes. These conversations are available online, and seem to be in Russian.[14][15] The phone calls mentioned the "brigade operative officer on duty", the communication codes "Debut", *"Nadezhda"* (Russian for "hope", both a noun and a female name), *"Sudak"* (an alternate name for the Zander, and also a town in Crimea) and *"Vulkan"* (volcano). The female voice says:

```
Офицер дежурного узла связи "Дебют", прапорщик Успенская. Получила контрольный звонок от Надежды...
...поняла.
```

On July 17, 2015, the station broadcast what appeared to be a RTTY signal in lieu of the buzzer.[16][17][18]

On February 7, 2019, several transmissions that were likely sent by a third party were broadcast. One of them goes:

```
Ya - Pogrom, Ya - Pogrom. Vozduh. 49 832 VOLKOSTYK 12 38 86 52
```

Location and function

The purpose of the station has not been confirmed by government or broadcast officials. However, the former Minister of Communications and Informatics of the Republic of Lithuania Rimantas Pleikys has written that the purpose of the voice messages is to confirm that operators at receiving stations are alert.[6][19][20] Other explanations are that the broadcast is constantly being listened to by military commissariats[21]

There is speculation published in the *Russian Journal of Earth Sciences* which describes an observatory measuring changes in the ionosphere by broadcasting a signal at 4625 kHz, the same as the Buzzer.[22]

It is also speculated that the voice messages are some sort of Russian military communications, and that the buzzing sound is merely a "channel marker" used to keep the frequency occupied, thereby making it unattractive for other potential users.[1] The signature sound could be used for tuning to the signal on an old analogue receiver. The modulation is suitable to be detected by an electromechanical frequency detector, similar to a tuning fork. This can be used to activate the squelch on a receiver. Due to the varying emission properties on short-wave bands, using a level-based squelch is unreliable. This also allows a signal loss to be detected, causing an alarm to sound on the receiver

Another theory, described in a BBC article, states that the tower emits a "Dead Hand" signal that triggers a nuclear retaliatory response if Russia were hit by a nuclear attack.[4]

There are two other Russian stations that follow a similar format, nicknamed "The Pip" and "The Squeaky Wheel". Like the Buzzer, these stations transmit a signature sound that is repeated constantly, but is occasionally interrupted to relay coded voice messages.[1]

The former transmitter was located near Povarovo, Russia,[1][23] at 56°5′0″N 37°6′37″E which is about halfway between Zelenograd and Solnechnogorsk and 10 kilometres (6.2 mi) northwest of Moscow, near the village of Lozhki. The location and callsign were unknown until the first known voice broadcast of 1997.[24] In September 2010, the station's transmitter was moved to the nearby city of Saint Petersburg, near the village of Kerro Massiv. This may have been due to a reorganization of the Russian military. Prior to August 9, 2015, the station is not transmitted from the Kerro Massiv transmitter site ("Irtysh") anymore, possibly due to a reorganization of the Russian military for the particular area which may cause the frequency to be used only in the Moscow Military District. At present, The Buzzer appears to be broadcast only from the 69th Communication Hub in Naro Fominsk, Moscow.[3] In 2011, a group of urban explorers explored the abandoned buildings at Povarovo.[25][26] They claim that it is an abandoned military base. A radio log record was found, confirming the operation of a transmitter at 4625 kHz.[25][27]

Other callsigns

Besides the main callsign, there have been transmissions containing different callsigns such as: **LNR4** (Russian: ЛНР4), **87OI** (Russian: 87ОИ), **VM62** (Russian: ВМ62), **A1JZh** (Russian: А1ЙЖ), **MSZh7** (Russian: МСЖ7), **OMP4** (Russian: ОМП4), **7U8T** (Russian: 7У8Т), **VLHN** (Russian: ВЛХН) and **217O** (Russian: 217О).

See also

- Duga radar (the "Russian Woodpecker")
- Numbers station
- Letter beacon

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Further reading

- Handler, Stephen (December 2013). "Is Russia's Buzzer a Doorbell to Doomsday?". *Popular Communications* **32** (4): 31–33. ISSN 0733-3315.

External links

- History and Info on The Buzzer
- NPR's Lost and Found Sound, 2000-05-26: The Shortwave Numbers Mystery
- UVB76 at the Global Frequency Database
- UVB-76 Temporary Internet Relay – Live Internet Streaming site, 900 km NW from station.
- UVB-76 Activity Updates
- Wired.co.uk 2011 article

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